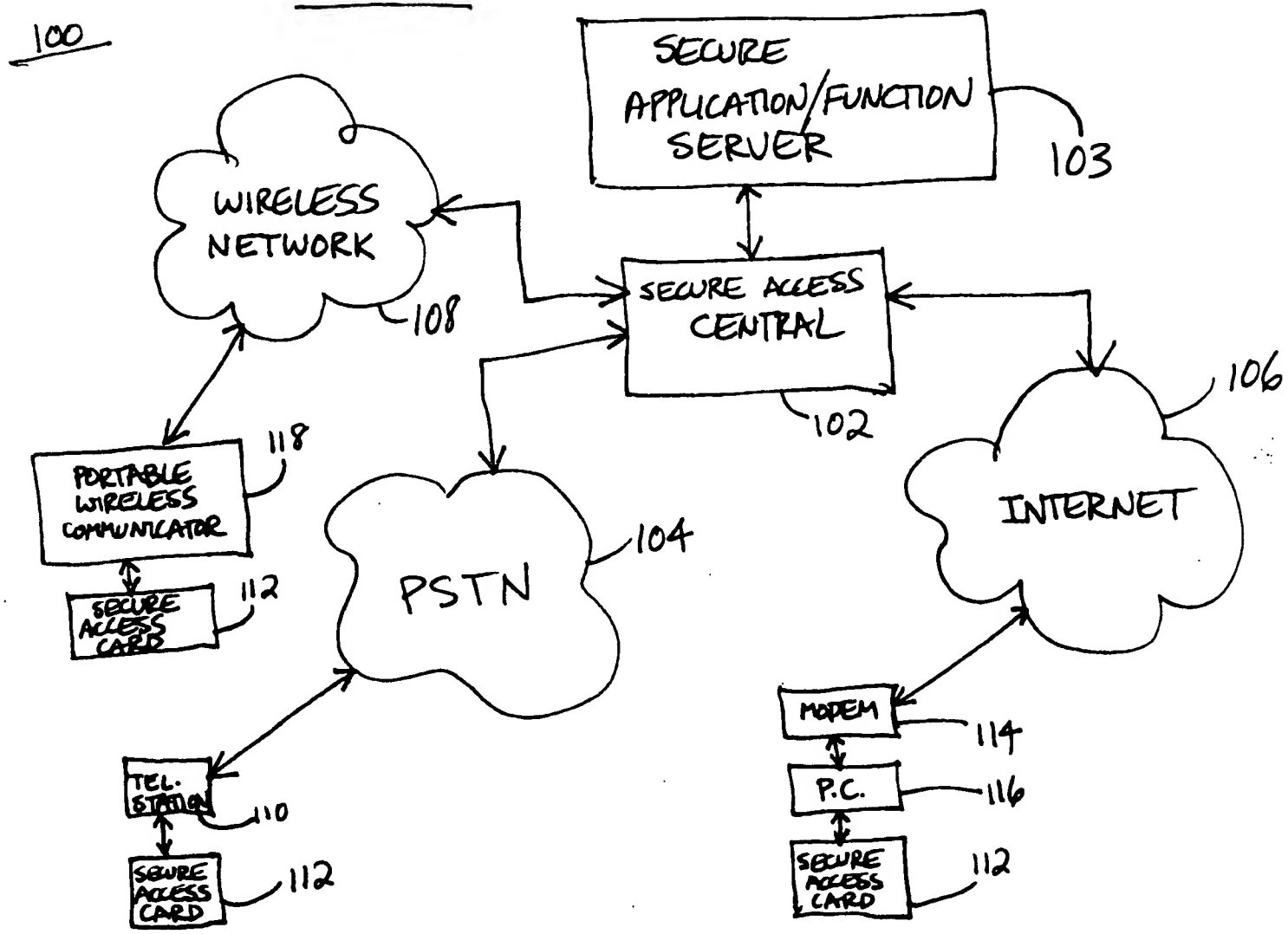
SECRET TESTICS

FIG. 1



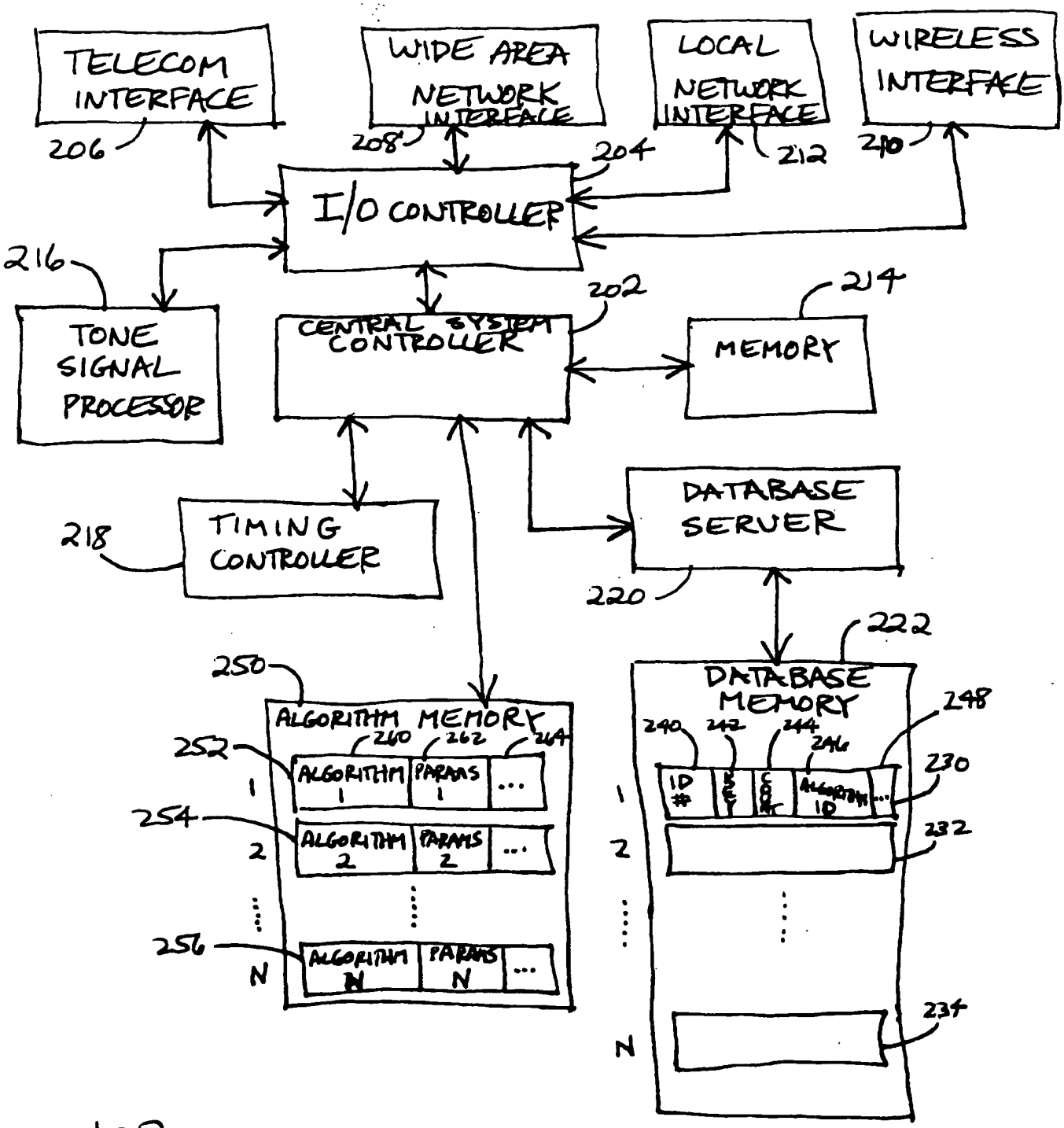

TELECOM INTERFACE
206
WIDE AREA NETWORK INTERFACE
208
LOCAL NETWORK INTERFACE
212
WIRELESS INTERFACE
210
I/O CONTROLLER
204
216
TONE SIGNAL PROCESSOR
CENTRAL SYSTEM CONTROLLER
202
MEMORY
214
TIMING CONTROLLER
218
DATABASE SERVER
220
222
250
ALGORITHM MEMORY
260
262
264
252
254
256
ALGORITHM 1
PARAMS 1
ALGORITHM 2
PARAMS 2
ALGORITHM N
PARAMS N
DATABASE MEMORY
240
242
244
246
248
230
232
234
ID #
KEY
ALGORITHM ID
102

FIG. 2

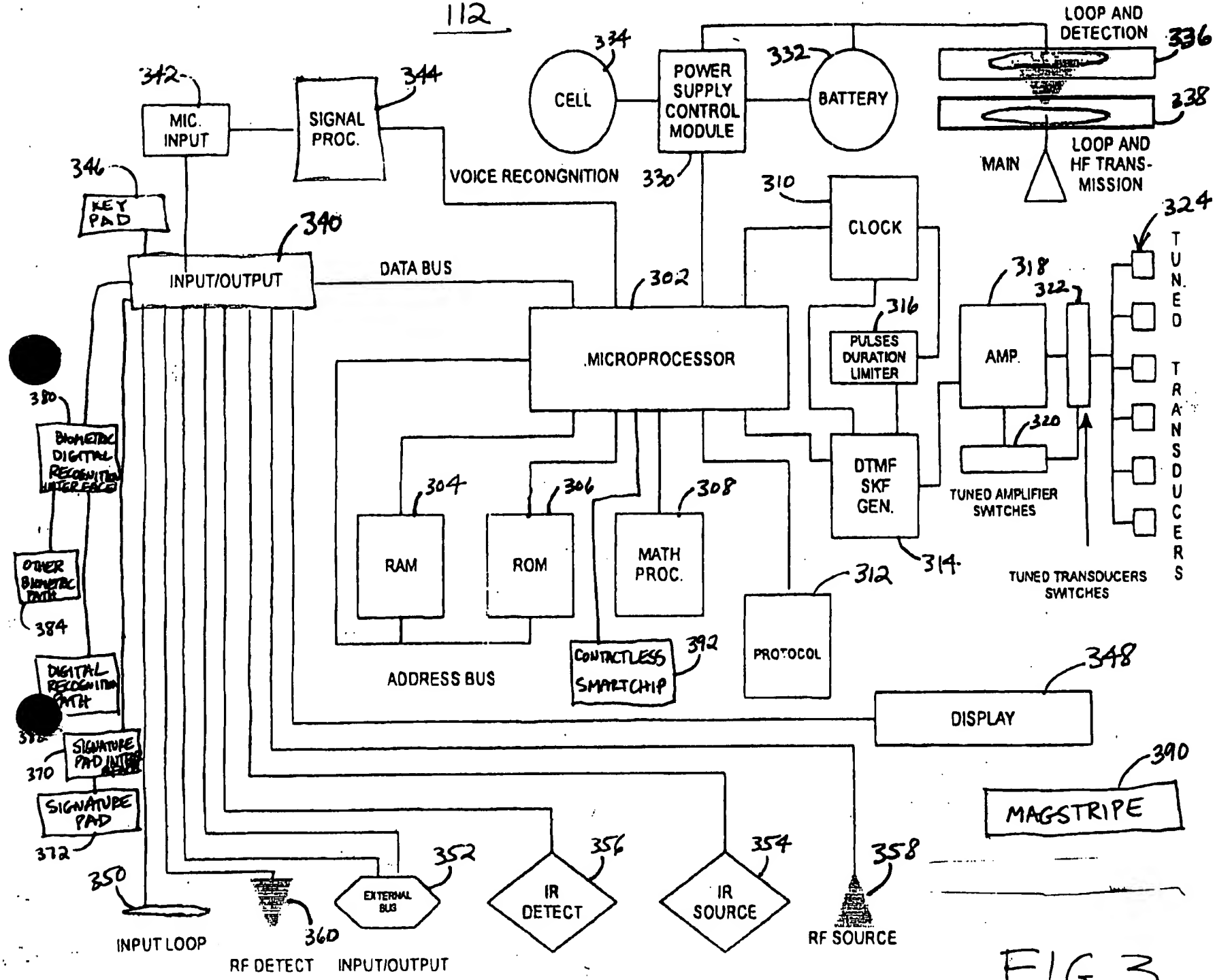
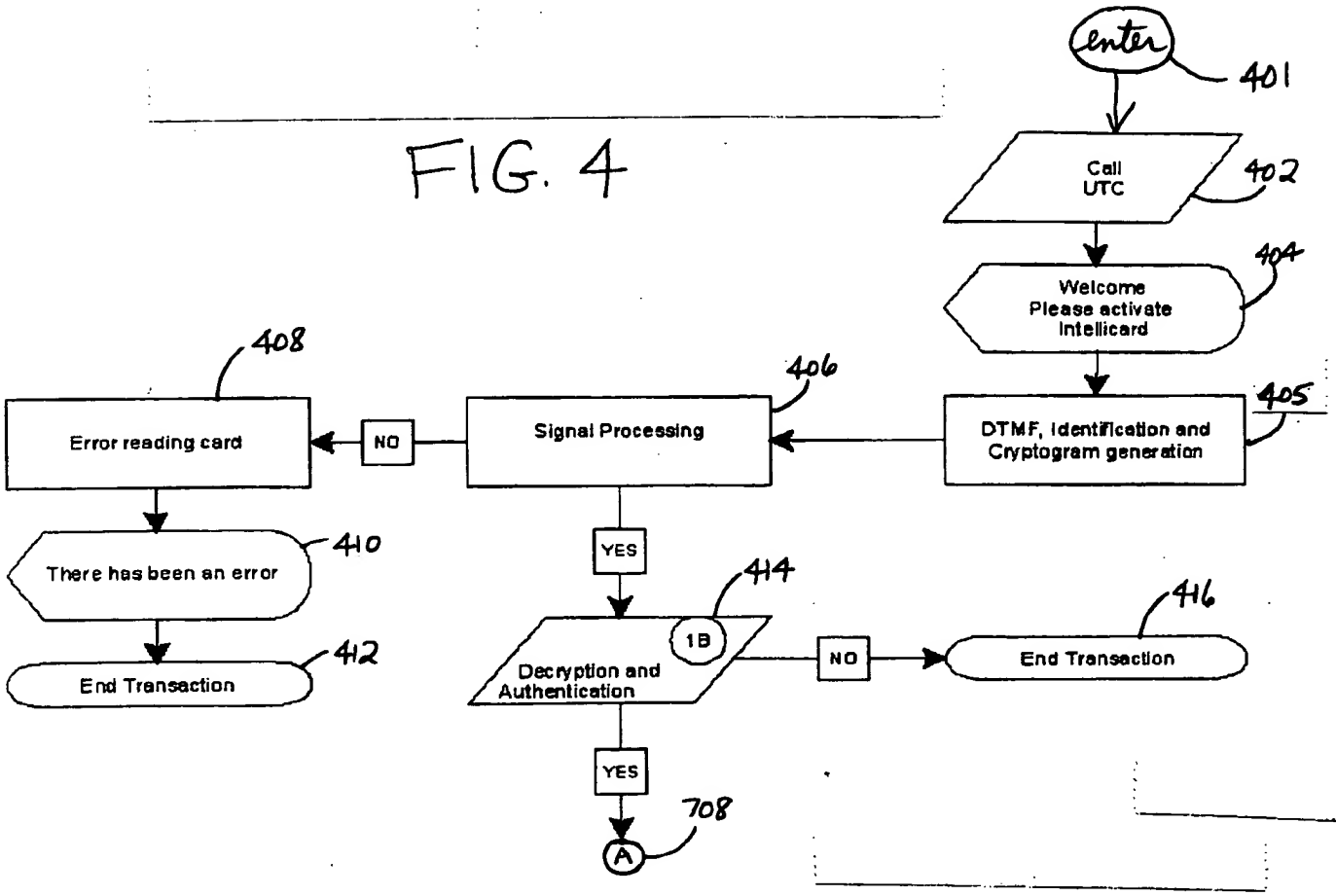

112
LOOP AND DETECTION
336
338
CELL
334
POWER SUPPLY CONTROL MODULE
332
BATTERY
342
MIC. INPUT
344
SIGNAL PROC.
VOICE RECONGNITION
330
MAIN
LOOP AND HF TRANS-MISSION
346
KEY PAD
340
INPUT/OUTPUT
DATA BUS
310
CLOCK
324
TUNED TRANSDUCERS
302
MICROPROCESSOR
316
PULSES DURATION LIMITER
318
AMP.
322
320
TUNED AMPLIFIER SWITCHES
TUNED TRANSDUCERS SWITCHES
380
BIOMETRIC DIGITAL RECOGNITION INTERFACE
304
306
308
RAM
ROM
MATH PROC.
DTMF SKF GEN.
314
312
OTHER BIOMETRIC PATH
384
ADDRESS BUS
CONTACTLESS SMARTCHIP
392
PROTOCOL
348
DISPLAY
DIGITAL RECOGNITION PATH
382
SIGNATURE PAD INTERFACE
370
390
MAGSTRIPE
SIGNATURE PAD
372
352
356
354
358
350
EXTERNAL BUS
IR DETECT
IR SOURCE
INPUT LOOP
360
RF DETECT
INPUT/OUTPUT
RF SOURCE

FIG. 3

FIG. 4


enter
401
Call UTC
402
Welcome Please activate Intellicard
404
DTMF, Identification and Cryptogram generation
405
Signal Processing
406
Error reading card
408
NO
There has been an error
410
End Transaction
412
YES
Decryption and Authentication
414
1B
NO
End Transaction
416
YES
A
708

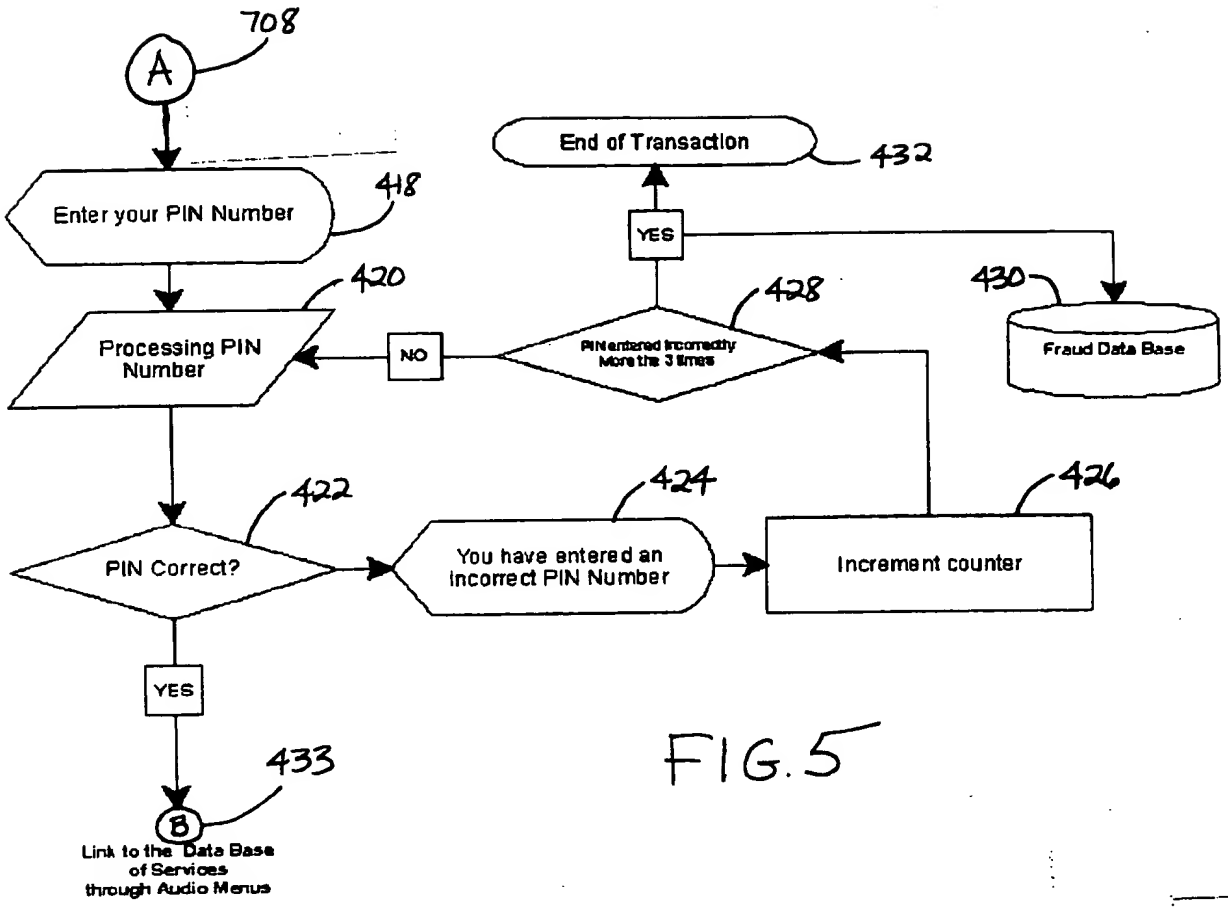

708
A
Enter your PIN Number
418
Processing PIN Number
420
PIN Correct?
422
YES
433
B
Link to the Data Base of Services through Audio Menus
NO
You have entered an incorrect PIN Number
424
Increment counter
426
PIN entered incorrectly More the 3 times
428
YES
End of Transaction
432
Fraud Data Base
430

FIG. 5

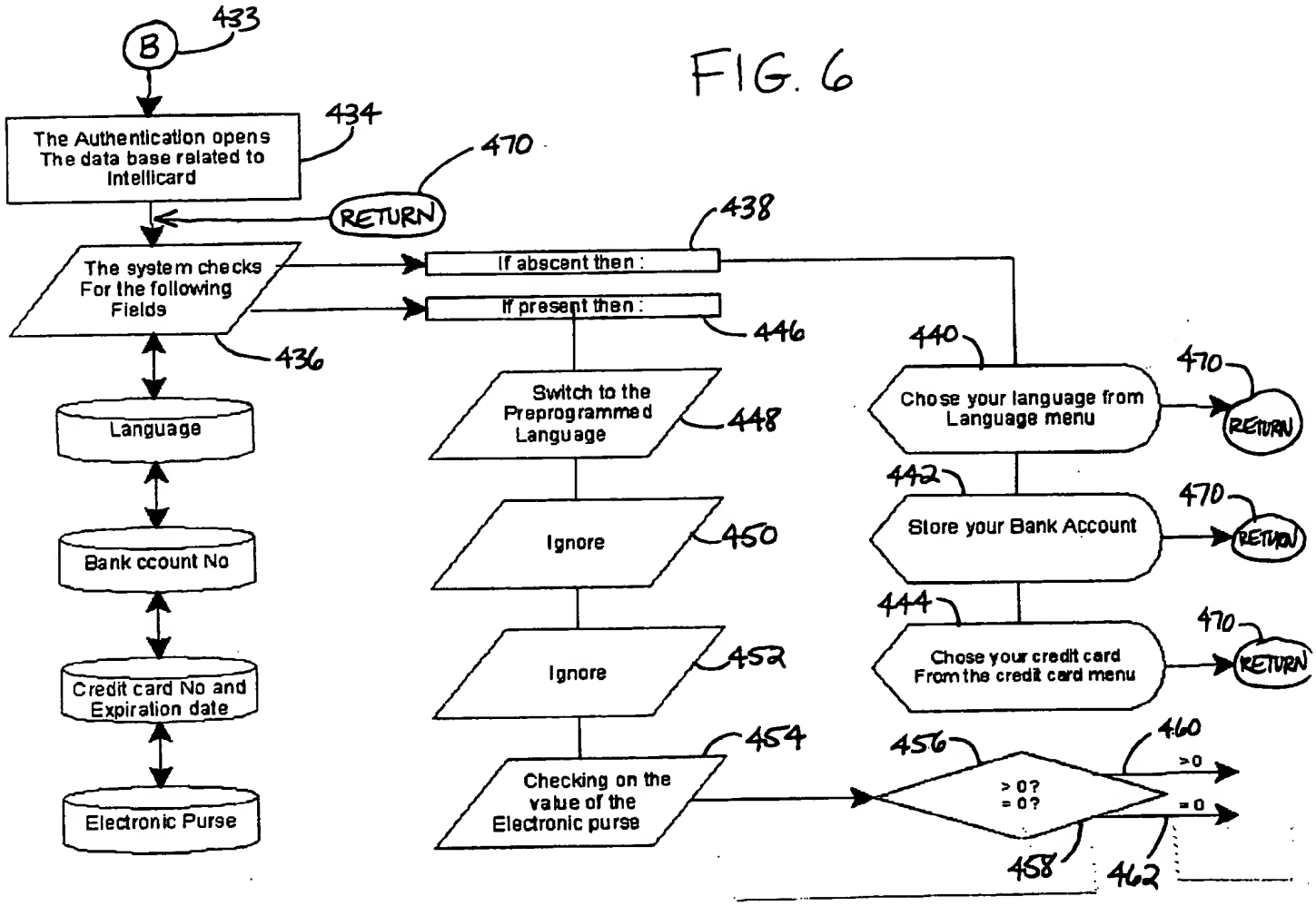

B
433
The Authentication opens The data base related to Intellicard
434
470
RETURN
The system checks For the following Fields
436
Language
Bank ccount No
Credit card No and Expiration date
Electronic Purse
438
If abscent then :
If present then :
446
Switch to the Preprogrammed Language
448
Ignore
450
Ignore
452
Checking on the value of the Electronic purse
454
440
Chose your language from Language menu
470
RETURN
442
Store your Bank Account
470
RETURN
444
Chose your credit card From the credit card menu
470
RETURN
456
> 0?
= 0?
460
>0
=0
458
462

FIG. 6

FIG. 7

1B

Authentication Process

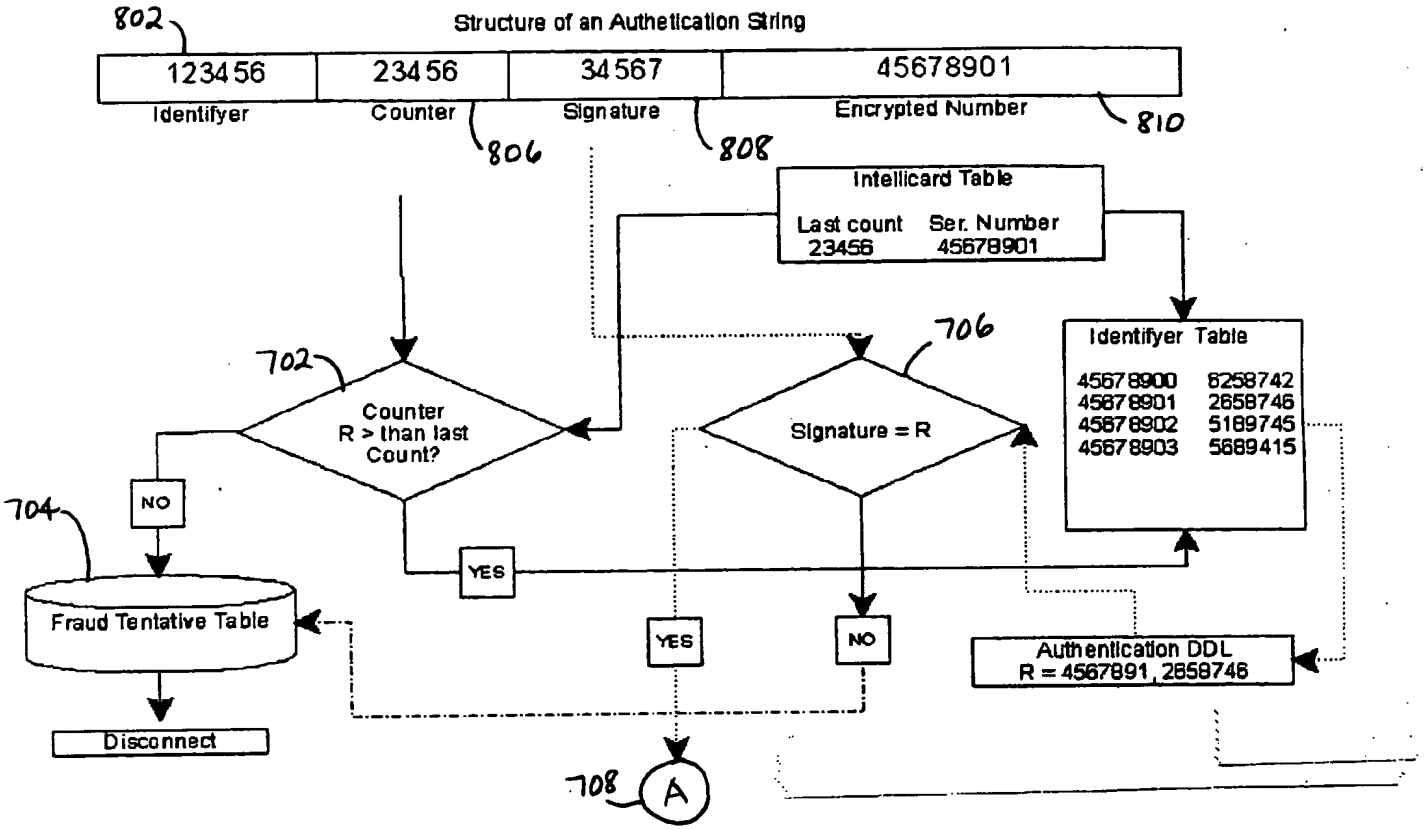
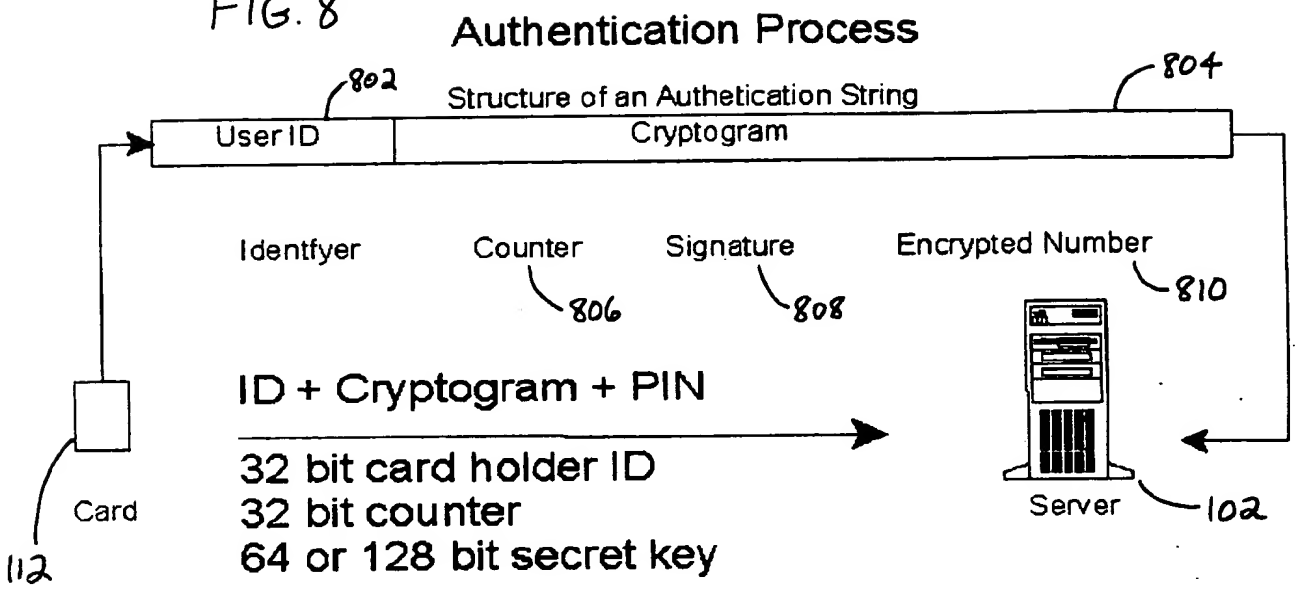


FIG. 8



The sequence changes each time the card is initiated
A counter is shared between the card and the server
The cryptogram = Algorithm (ID, counter value, secret key)
The user ID is encoded

FIG. 9

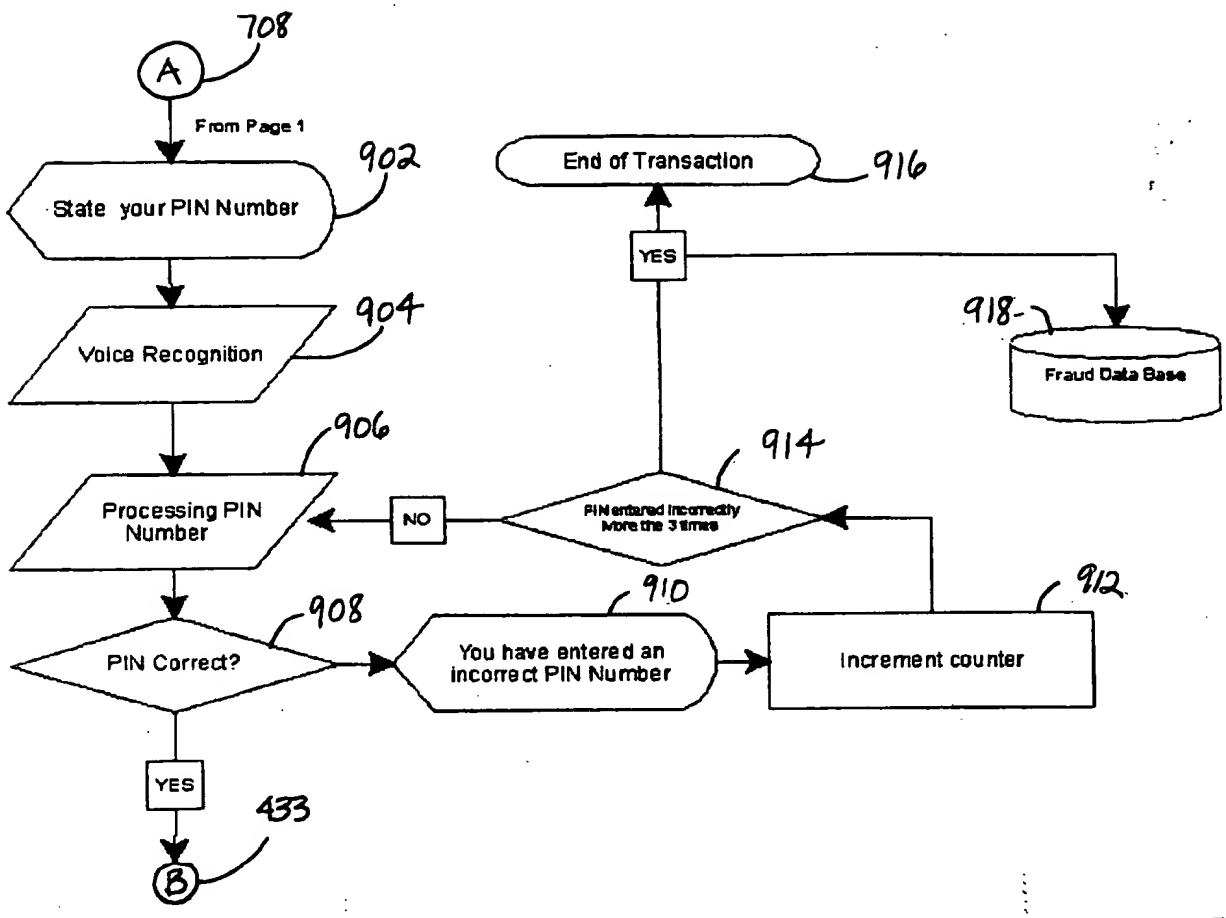

708
A
From Page 1
902
State your PIN Number
904
Voice Recognition
906
Processing PIN Number
908
PIN Correct?
YES
433
B
NO
914
PIN entered incorrectly more the 3 times
YES
End of Transaction
916
918
Fraud Data Base
910
You have entered an incorrect PIN Number
912
Increment counter

FIG. 10

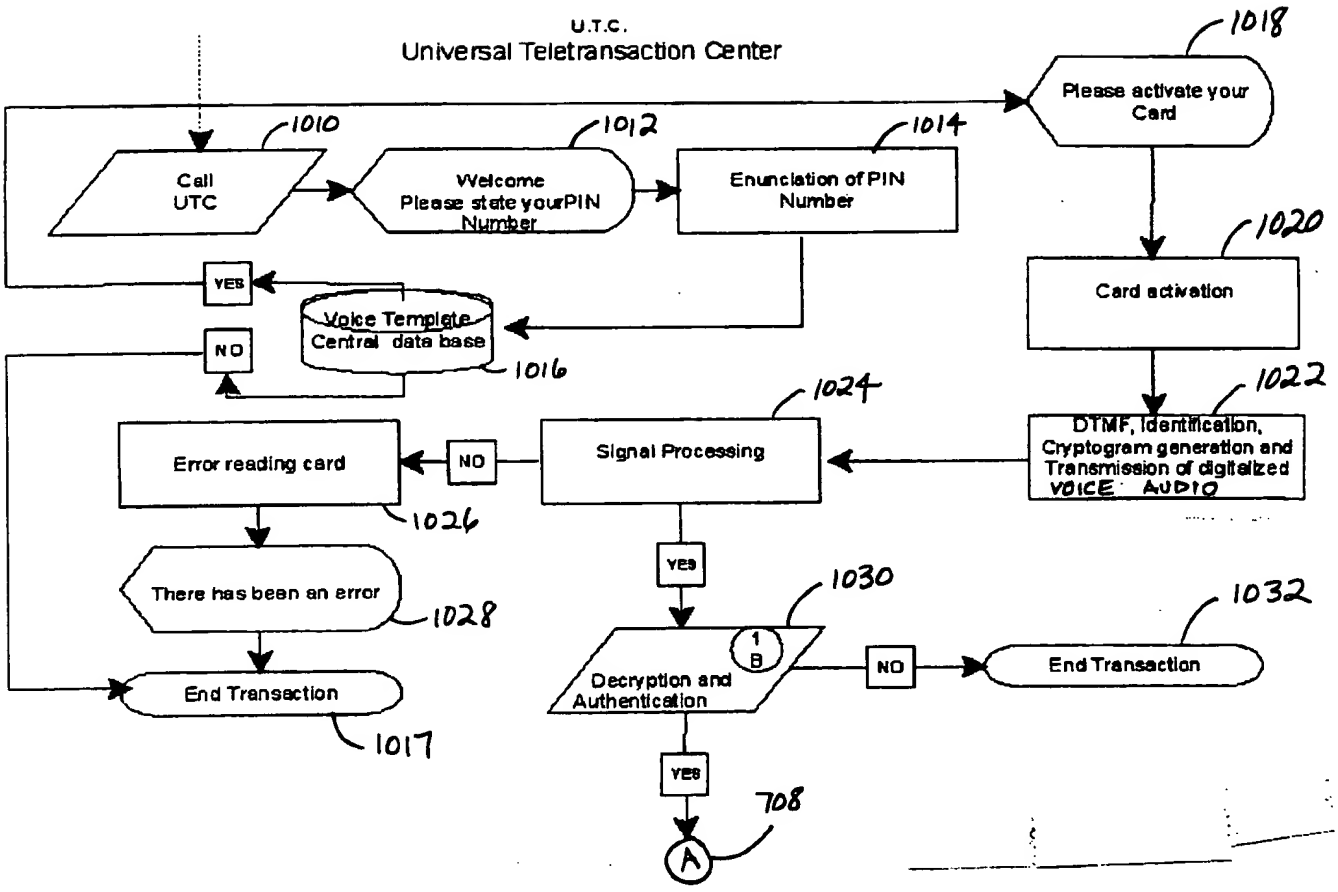

U.T.C.
Universal Teletransaction Center
1018
Please activate your Card
1010
Call UTC
1012
Welcome Please state yourPIN Number
1014
Enunciation of PIN Number
1020
Card activation
YES
Voice Template Central data base
1016
NO
1024
1022
Error reading card
NO
Signal Processing
DTMF, Identification, Cryptogram generation and Transmission of digitalized VOICE AUDIO
1026
YES
1030
1032
There has been an error
1028
1 B
Decryption and Authentication
NO
End Transaction
End Transaction
1017
YES
708
A

FIG. 11

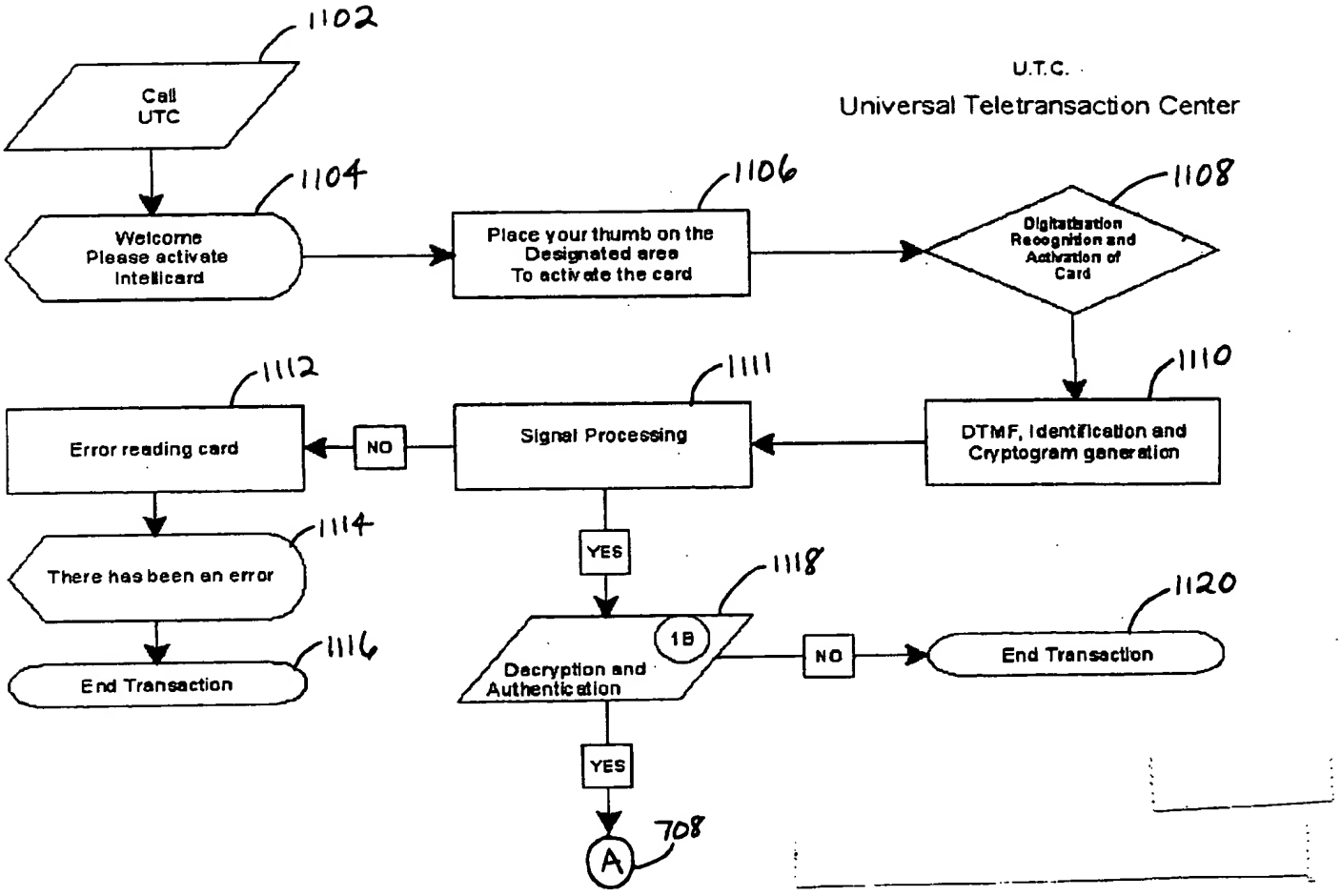

1102
Call UTC
U.T.C.
Universal Teletransaction Center
1104
Welcome Please activate Intellicard
1106
Place your thumb on the Designated area To activate the card
1108
Digitalisation Recognition and Activation of Card
1110
DTMF, Identification and Cryptogram generation
1111
Signal Processing
1112
Error reading card
NO
1114
There has been an error
1116
End Transaction
YES
1118
1B
Decryption and Authentication
NO
1120
End Transaction
YES
A
708

FIG. 12

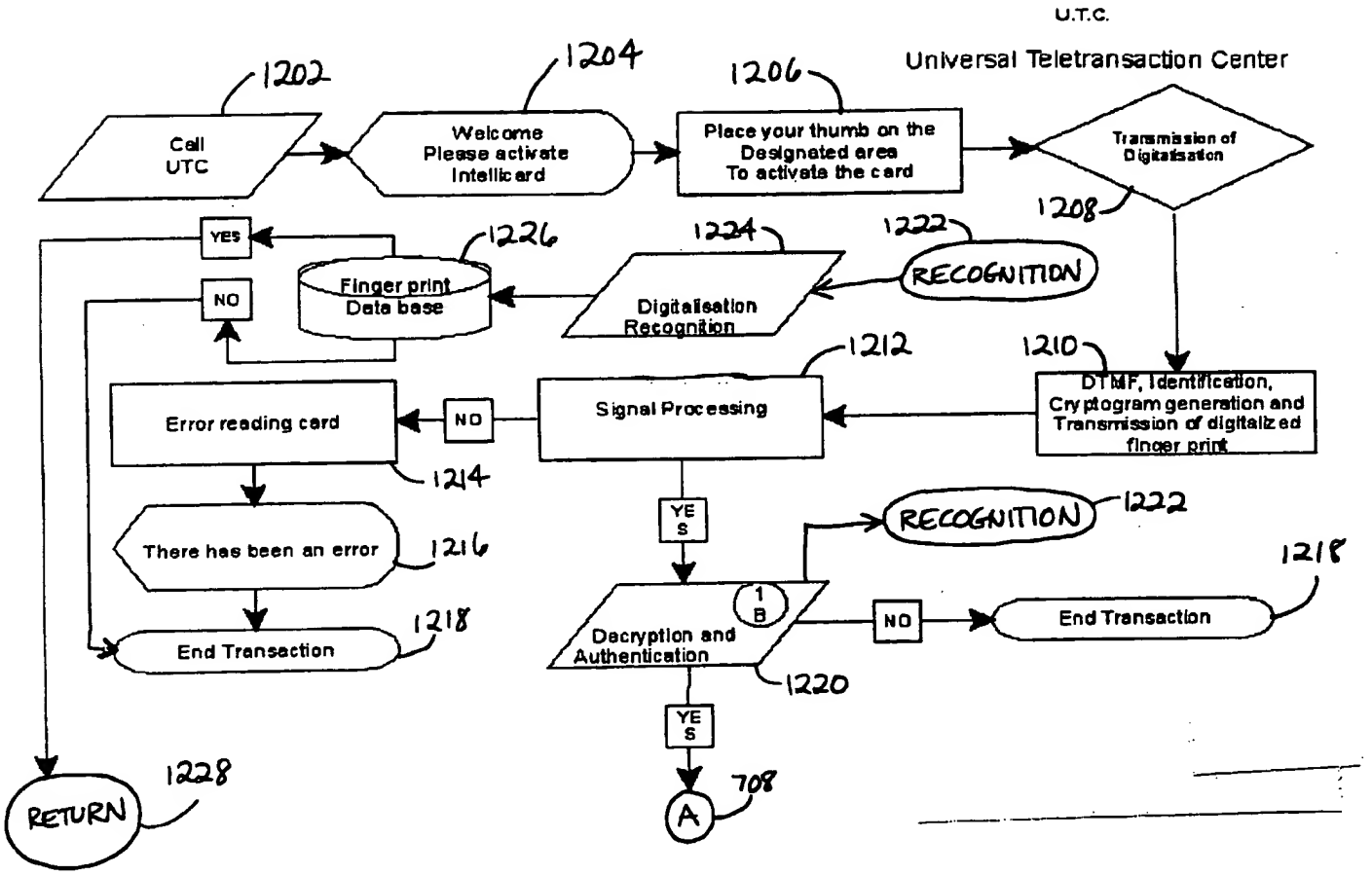
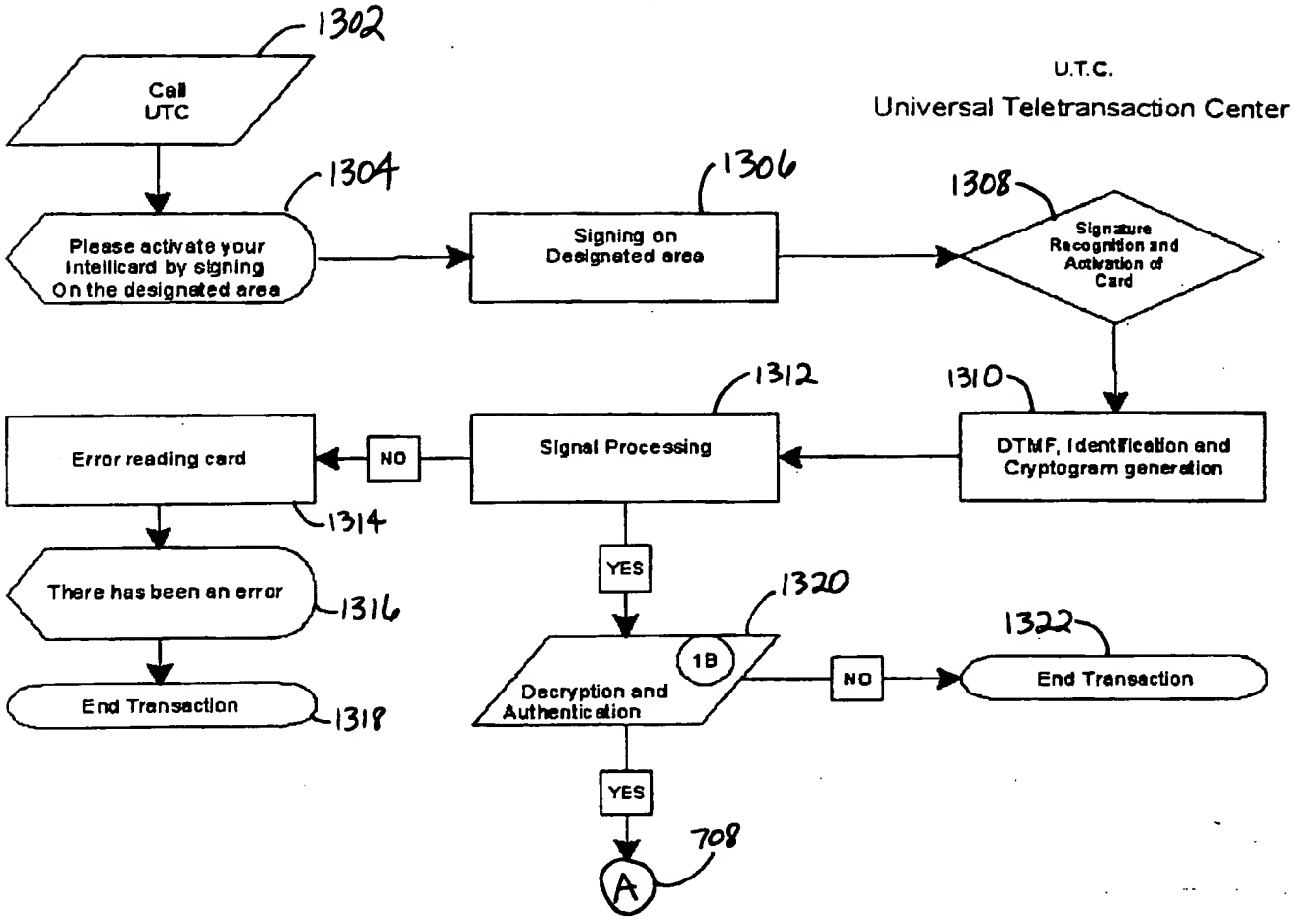

U.T.C.
Universal Teletransaction Center
1202
Call UTC
1204
Welcome Please activate Intellicard
1206
Place your thumb on the Designated area To activate the card
Transmission of Digitalisation
1208
1210
DTMF, Identification, Cryptogram generation and Transmission of digitalized finger print
1212
Signal Processing
NO
Error reading card
1214
There has been an error
1216
End Transaction
1218
YES
Finger print Data base
1226
NO
1224
Digitalisation Recognition
1222
RECOGNITION
YES
RECOGNITION
1222
1218
1B
Decryption and Authentication
1220
NO
End Transaction
YES
A
708
RETURN
1228

FIG. 13


1302
Call UTC
U.T.C.
Universal Teletransaction Center
1304
Please activate your Intellicard by signing On the designated area
1306
Signing on Designated area
1308
Signature Recognition and Activation of Card
1310
DTMF, Identification and Cryptogram generation
1312
Signal Processing
NO
Error reading card
1314
There has been an error
1316
End Transaction
1318
YES
1320
1B
Decryption and Authentication
NO
1322
End Transaction
YES
708
A